

**STAFF REPORT**  
**CONSIDERATION OF CEASE AND DESIST ORDER AND CONNECTION RESTRICTION**  
**FOR**  
**NAPA BERRYESSA RESORT IMPROVEMENT DISTRICT**  
**WASTEWATER TREATMENT SYSTEM**  
**NAPA COUNTY**

**Introduction**

The Napa Berryessa Resort Improvement District (Discharger) owns and operates a wastewater treatment system that serves the Berryessa Highlands subdivision and the Steele Park Resort on the eastern side of Lake Berryessa. Steele Park Resort is a U.S. Bureau of Reclamation concessionaire, and generates waste from campsites, day use areas, a motel, mobile homes, and a boat launch. The wastewater system is regulated by Waste Discharge Requirements (WDRs) Order No. 95-173, which allows for the treatment of a monthly average flow of 50,000 gallons per day (gpd) of domestic wastewater.

The wastewater is collected through a series of gravity sewers, lift stations, and force mains prior to entering the Wastewater Treatment Plant (WWTP). The WWTP is an extended aeration activated sludge plant consisting of two aeration basins, two clarifiers and three synthetic lined effluent holding basins. One of the holding basins is used as a chlorine contact basin. Chlorinated wastewater is pumped some distance from the plant to a 50,000-gallon storage tank located on a hillside where it flows via gravity into a 60-acre spray disposal area consisting of four land application areas. The Zone No. 1 land application area is located on a hillside above a tailwater collection pond. A perennial stream bisects Zone No. 1, and the Discharger has installed a small dam to retain wastewater in the tailwater pond when the field is being irrigated, but to allow natural surface water to flow off the site when the field isn't being irrigated. The other three disposal zones are located on the hillside above a dirt road, and according to the Discharger, any spills or tailwater will flow down the dirt road and into the tailwater pond.

The Napa County Board of Supervisors serves as the Napa Berryessa Resort Improvement District Board of Directors. Napa County staff serve as District staff.

**Previous Enforcement**

The Discharger has a history of violations of its WDRs dating back to at least 1995. The majority of these violations are due to a lack of capacity in the storage and disposal components of the WWTP, and include discharges to Lake Berryessa. In addition, there have been recurring issues with a lack of proper sludge storage and disposal. In response to these violations, on 20 September 1996, the Regional Water Board adopted Cease and Desist (C&D) Order No. 96-232 for the Napa Berryessa Resort Improvement District. The purpose of the C&D Order was to expand the storage and disposal capacity at the WWTP. The Discharger complied with a minimal portion of the C&D by submitting the a financial plan for the system expansion, as well as short term and long term sludge disposal plans (however, these were not implemented). The Discharger did not comply with the majority of the C&D Order because it did not design or construct any improvements to increase the storage or disposal capacity. Since the C&D Order was adopted, Regional Water Board Staff have issued numerous Notices of Violation for noncompliance with the C&D Order, the WDRs, and the Monitoring and Reporting Program. These additional violations are discussed in the Findings of the tentative Order.

### **Facility Master Plan**

In 1995, the Discharger authorized an outside consulting firm to complete a Master Plan to evaluate both the water treatment and wastewater treatment plants to determine their ability (a) to comply with existing and projected regulations and (b) to provide continuing, reliable operation. The Master Plan was finalized in June 2006.

With respect to the WWTP and Regional Board regulations, the Master Plan describes a number of areas of non-compliance:

1. The flow limit in the WDRs is 50,000 gpd. The Discharger's consultants were not able to determine actual influent flows because "although the meter has been reportedly calibrated, the monthly average flows reported are inconsistent and questionable." Instead of using facility data, the consultants used standard engineering flow rates for domestic wastewater, and found that the existing flow is estimated to be 113,000 gpd. Staff generally concur with the engineering assumptions, and believe that the estimated flow rate is probably representative of actual conditions. (Although without calibration of the flow meter, the actual flow is unknown.) Therefore, the Discharger is accepting an influent flow that is at least double that allowed by the WDRs.
2. The WDRs contain the standard land-discharge specifications that the wastewater ponds shall be designed and operated to accommodate all wastewater, precipitation, inflow/infiltration, and runoff generated during a 100-year annual precipitation event. In addition, pond freeboard shall never be less than two feet. The Master Plan includes a preliminary water balance that documents that this condition can not be met, and states that the tailwater return pond would need to be 15-20 times larger than it currently is and that the sprayfield operation would need to be modified to meet these requirements.
3. The WDRs state that the wastewater shall remain within the sprayfield area at all times, and to ensure this, that storm water runoff from the sprayfields shall not be allowed to run off site within 48 hours of the last application of waste. The Master Plan states that the Discharger is at least in intermittent violation of the WDRs since the runoff ditch is used at times to bypass the tailwater collection pond even though wastewater is sprayed on the disposal area every day during the winter. Staff also note that the monthly monitoring reports do not contain freeboard elevations for the tailwater pond, and that the tailwater pond contains an overflow culvert.
4. The WDRs require that sludge and other solid wastes from the treatment process be handled in a manner that complies with the regulations. The Master Plan reiterates staff's concerns that the District has been stockpiling sludge on its sprayfield and not properly disposing of it. In addition, staff are concerned that the sludge drying pond is not adequately managed to remove all sludge and sludge residue prior to the winter. The pond contains an overflow culvert and is at the base of a hill, so it appears that storm water will collect in the pond and may overflow to surface waters.
5. The Master Plan also highlights the groundwater monitoring issue. The 1995 WDRs required that the Discharger implement a groundwater monitoring program at the spray

fields. That was never accomplished, and when staff revised the Monitoring and Reporting Program in 2004, we provided the Discharger with a new timeline in which to install the wells. The wells were to have been installed and sampled beginning with the fall of 2004. That was not accomplished; however, in August 2006, the District submitted a well installation workplan. The tentative Order requires that the wells be installed and sampling begin by May 2007.

With respect to the Water Treatment Plant, the Master Plan states that wastewater generated at the plant flows into a 50,000-gallon earthen holding pond. Apparently, the backwash water is disposed of by spraying it onto land, because the Master Plan also states that “the relocation of the existing backwash disposal sprayfields to a location further from the lake will be required to mitigate concerns over lack of source water protection from the land disposal of waste.” The discharge of water treatment plant backwash water to land is subject to regulation under the California Water Code. Staff were unaware of this facility, and the Discharger has never submitted a Report of Waste Discharge to seek authorization for its activities. Based on the language in the Master Plan, staff are concerned that the waste may in fact flow off the sprayfield and into Lake Berryessa, and have therefore added two requirements to the tentative Order (i.e., modify the sprayfield to prevent discharges and submit a RWD).

The Master Plan highlights the major violations at this facility. In addition, the Findings of the tentative Order describe the other violations that are documented in the Regional Board’s case file.

### **Basis for Connection Restriction**

The Napa Berryessa Resort Improvement District was created in 1965 with the intention of serving 117 existing residences, the Steele Park Resort, and a planned 1700 unit development. Only the first two phases of the development were subsequently approved. According to the Master Plan, the Discharger currently provides wastewater service to 558 EDUs (equivalent dwelling units), and at full build-out, will provide service to 863 EDUs.

The 1996 Cease and Desist Order required that the Discharger submit, among other items, quarterly reports which were to include the number of building permits issued during that period. The quarterly reports were never submitted, but staff understand that homes continue to be constructed within the development, and that numerous houses hook up to the community collection system each year. In the 30 years since the District was created, the number of homes has grown from 117 to at least 335.

Section 2244 of Title 23 of the California Code of Regulations describes the Regional Water Board’s authority to issue a “restriction on additional discharges to community sewer systems” (i.e., a connection restriction). The purpose of a connection restriction is to prevent an increase in the violations of waste discharge requirements (or the likelihood of violations) and thereby prevent an increase in unreasonable water quality impairment. This facility has a demonstrated lack of capacity to store and dispose of its wastewater. The Regional Water Board adopted a Cease and Desist Order in 1996 to require improvements, yet they were never completed and the district continued to allow houses to hook up to the collection system. The sprayfields are on a hillside adjacent to Lake

Berryessa. Wastewater spills flow directly into Lake Berryessa, which is the drinking water source not just for this community but for other resorts and communities around the lake and downstream. The Regional Water Board has a duty to ensure that compliance with the WDRs is achieved, and a connection restriction is a logical method to do so.

As described in Title 23, the connection restriction applies to connections to the sewage collection system by individual households or businesses who did not have a building permit approved prior to the 12 September 2006 Public Hearing Notice, except under the following conditions:

- a. Projects for which building permits were issued prior to the 12 September 2006 Public Hearing Notice;
- b. Projects which normally do not require a building permit and for which construction commenced prior to the 12 September 2006 Public Hearing Notice;
- c. Projects which would eliminate discharges from existing dwellings which have failing systems whose threat to water quality or public health is greater than that of the existing collection system;
- d. Projects that would alleviate an extreme public hardship or public health problem.

In response to public comments, staff have proposed an additional exemption to the above four listed in Title 23. We have been informed by the Napa County Building Department that prior to the 12 September Public Hearing Notice, five individuals had completed all steps to obtain a building permit except for the ministerial action of paying the permit fee. Staff believe that allowing these individuals to obtain their building permits would not go against the intent of Section 2244.1, and therefore have proposed the following addition to the Cease and Desist Order:

- “e. Projects for which all steps to obtain a building permit have been completed except for the ministerial action of paying the permit fee (e.g., Johnpeer [1122 Rimrock Dr; building permit no. B06-01305], Nix [4645 Monticello Road; building permit no. B06-01258], Penley [Neptune Way; building permit no. B06-01142]; Raymond [1020 Overland Dr; building permit no. B06-01338], and Raymond [342 Black Oak Lane; building permit no. B06-01374]).”

As described in Title 23, the full connection restriction will remain in effect until the Discharger demonstrates to the Regional Water Board that the violations of requirements which were the basis for imposing the restriction have ceased and consistent compliance with those requirements have been achieved. At that time, staff would ask that the Regional Water Board remove the connection restriction.

Because it may take many years to make the capital improvements necessary to comply with the WDRs, Title 23 (Section 2244.3) allows for an interim number of sewage connections if the Discharger has demonstrated compliance with five items. The following language has been added to the Cease and Desist Order:

“The Discharger may request that the Regional Water Board allow an interim number of sewage connections by demonstrating that:

- a. Consistent compliance with requirements can be achieved only by construction of a facility which will take a substantial period of time to complete;
- b. The Discharger has the capacity, authority, and financial resources to complete the corrective measures necessary to achieve compliance and is currently proceeding with such corrective measures;
- c. The corrective measures necessary to achieve compliance will be completed and placed into operation by the Discharger in the shortest practicable time;
- d. All practicable interim repairs and improvements which can be made have been made; and
- e. During the interim period of time until compliance with requirements can be fully achieved, the discharge will be managed, operated, maintained and repaired so as to reduce to a minimum the violations which resulted in the imposition of the connection restriction, and that such minimum violations for the interim period of time involved will not significantly impair water quality or beneficial uses.”

If the Discharger demonstrates compliance with these findings, then staff will ask that the Regional Water Board allow an interim number of connections, based upon the measures taken and the time remaining for final compliance.

### **Requirements of the Cease and Desist Order**

The Cease and Desist Order addresses all known violations at the facility. Specific requirements are found in the “Hereby Ordered” section of the tentative Order, and are summarized below. It is noted that the portion regarding the connection restriction has already been described.

#### General Issues

The Discharger must immediately begin reporting all sanitary sewer overflows and any overflows from any treatment, storage, or disposal component in compliance with the Standard Provisions and Reporting Requirements. All spills shall be reported to the appropriate agencies.

The Discharger must submit a *Revenue Plan* that describes the costs associated with implementation of all tasks in this Order.

The Discharger must submit a *Staffing Analysis Report* for the wastewater collection, treatment, and disposal system. The analysis shall include a review of current staffing levels, allocation of staff tasks, an analysis of whether current staff allocation is adequate, and if necessary, describe the shortfalls and make recommendations for future staffing needs.

The Discharger must submit a report describing measures taken to prevent the tailwater overflows from the land application areas, must report freeboard and dissolved oxygen levels in the tailwater return pond on a daily basis, and must close the cofferdam whenever the sprayfields are in operation or are draining.

The Discharger must have its flow meters calibrated by an independent third party.

#### Sludge Removal and Management

The Discharger must remove the stockpiled sludge, appropriately close the non-compliant sludge drying pond, and proposed drying and disposal practices which comply with all regulations.

#### Collection System Improvements

The Discharger shall submit an *Inflow and Infiltration (I/I) Assessment Workplan* that include measures to quantify and identify the I/I sources, and then shall submit an *I/I Assessment Report* that describes the improvements made to reduce I/I. In addition, the Discharger must comply with the Statewide General Order for Sanitary Sewer Systems, and must complete the Operation and Maintenance plan and Spill Response plan sooner than required by the Statewide General Order.

#### Wastewater Disposal Plan and Report of Waste Discharge

The Discharger shall submit a *Final Wastewater Disposal Plan* that includes a water balance for both the current inflow and projected flows through at least the year 2022. The plan shall also include a timeline for all improvements to be completed by January 2012. Following the Executive Officer's written concurrence with the *Final Wastewater Disposal Plan*, the Discharger shall submit a *Report of Waste Discharge* (RWD) to allow WDRs to be revised to reflect the proposed upgrades. The RWD shall clearly show that the proposed improvements will be protective of groundwater quality.

#### Groundwater Monitoring

Groundwater monitoring well shall be installed at the sprayfields by 1 May 2007, and quarterly sampling shall begin with the second quarter of 2007.

#### Water Treatment Plant

The Discharger shall immediately cease any discharge of backwash water off the sprayfield. In addition, by November 2007, the Discharger shall submit a RWD for this facility.

#### Progress Reporting

The Discharger shall submit *Quarterly Progress Reports* describing the work completed to date regarding each of the reporting requirements described in the C&D Order.

### **PUBLIC COMMENTS ON THE DRAFT CEASE AND DESIST ORDER**

The Draft Cease and Desist Order was transmitted for public review on 13 September 2006. Comments were received from Napa Berryessa Resort Improvement District (Discharger), the California Sportsfishing Protection Alliance (CSPA), the County of Napa Office of Conservation Development and Planning, and six property owners. The comments were received within the comment period. Copies of the letters are provided in Attachment A.

#### **Discharger's Comments**

On 27 September 2006, the Discharger met with Regional Water Board Staff to discuss (a) the Draft C&D Order and how the proposed building moratorium in the Draft Order affects those who were nearly complete with the building permit process, (b) the violations presented in the Draft Order, (c) the improvement projects outlined in NBRID's Master Facilities Plan, and (d) a

schedule for compliance with the Draft Order and implementation of the Master Facilities Plan. The Discharger subsequently submitted written comments. The Discharger requested changes in the connection restriction section and in the Findings. No changes were requested to the "Hereby Ordered" section.

Staff accommodated a number of the Discharger's requests for changes in the Findings. Those items which were not addressed are discussed below.

*The Discharger requests that 12 building permit applications be excluded from the proposed connection restriction.* The Discharger states that while the average daily flows are greater than the 50,000 gpd allowed by the WDRs, the problem is not the number of homes hooked up to the system, but inflow and infiltration (I/I). Therefore, the Discharger believes that adding more homes to the collection system will result in de minimis increases in flows and therefore the Regional Water Board should allow all 12 pending building permits to be exempted from the connection restriction.

Staff's response is that while the District states that I/I is the major source of the high flows into the system, it is impossible to determine whether this is true from the District's monitoring reports. In general, I/I increases in the winter with rainstorms and higher groundwater levels. The rainfall from the period of December 2005 through March 2006 was heavier than normal, and if I/I were a significant issue, then the Discharger's monitoring reports would show increased flows following the storms and in the early spring months. However, the December 2005 monitoring report shows an inflow of 116,670 gpd each day of the month, the January 2006 report shows an inflow of 89,651 gpd each day of the month, the February 2006 report shows a value of "zero" inflow for each day of the month, and the March 2006 report shows 108,850 gpd for each day of the month. It is highly unusual for a wastewater treatment plant to report the exact same inflow for every day of the month. The Discharger has had issues with its flow meter, and it appears to staff that the Discharger is estimating its flow and is not able to determine accurate flows. Therefore, it is not possible to determine the magnitude of any I/I problems. In addition, the District's I/I analysis (described in Finding No. 13 of the Order) showed that the portions of the system surveyed were generally in good condition.

It is noted that these estimated flows are similar to that given in the Master Plan of 113,000 gpd. The Master Plan predicted influent flows based on the number of homes connected to the system, and clearly predicts flow increases based on the number of connections. As the Master Plan's water balance shows that there isn't adequate capacity at this time to handle the waste from the current number of homes, it is appropriate to impose a connection restriction.

Since the tentative Cease and Desist Order was issued, staff learned that a number of individuals had completed all of the work necessary to obtain a building permit except for the ministerial action of paying the fee. Staff believe that this ministerial action is not included in the intent of Section 2244, Title 23. Therefore, this revised Order specifically exempts the five projects for which the Napa County Building Department has identified as only owing a fee. We are accommodating Napa County's request to some extent by excluding five of the requested 12 applicants.

*The Discharger requests that irrelevant material be removed from the final Cease and Desist Order.* The District correctly states that connection restrictions are not to be used as a punitive measure, but erroneously believes that only Findings relating to the need for the connection restriction should be included in the Order. The intent of this Order is to remedy all the water quality violations at the Napa Berryessa Resort Improvement District. Therefore, it is appropriate to include all of the Findings regarding all of the violations of the previous C&D Order, as well as violations of the WDRs and MRP.

*The Discharger requested that Finding No. 12 (regarding the sludge stockpile) be revised to state that "the District is currently in the process of removing the sludge".* The finding has not been revised as it is factual as is. Staff appreciates that the Discharger is in the process of removing the sludge and will provide a report to the Regional Water Board following completion. In fact, the tentative Order says the material must be removed by March 2007.

*The Discharger requests that Finding No. 23 (regarding lack of tailwater controls) be revised.* Staff has re-read the Notice of Violation which is referenced in this Finding, and has revised the text to more accurately reflect the language of the notice and staff's evaluation of the Discharger's data.

*The Discharger requests that Finding No. 25 (regarding dissolved oxygen monitoring) be revised.* Staff has carefully reviewed the WDRs, the original MRP, and the Revised MRP, as well as the Discharger's monitoring reports. The text has been revised to reflect the information in the case file.

*The Discharger states that it did not know it had to monitor freeboard levels in the tailwater pond until its 27 September 2006 meeting with staff.* Staff referred the Discharger to the 11 March 2004 site inspection and the subsequent 8 April 2004 Notice of Violation in which the District was instructed to immediately begin collecting and reporting freeboard measurements from the tailwater recirculation pond.

### **California Sportsfishing Protection Alliance Comments**

The California Sportsfishing Protection Alliance (CSPA) comments are presented in a 29 September 2006 letter which is included in Attachment A. The majority of the comments were addressed, as described below.

*CSPA states that the Order fails to require a complete I/I assessment.* CSPA provides lengthy comments as the information that should be reviewed to complete a thorough I/I assessment. Staff agree that the tentative Order's language was simplistic, and has revised it somewhat to further identify the items to be included in the I/I workplan. Staff have also added two requirements to the Order in response to CSPA's comments. First, staff have added the requirement that the District complete an independent calibration of its flow meters, as these instruments are critical in identifying (a) the time periods when I/I flows are greatest and (b) whether physical improvements to the collection system have resulted in decreased I/I. Second, the collection system needs to be periodically inspected and maintained to avoid increased I/I flows, and it is staff's experience that some communities do not employ enough wastewater staff to adequately maintain all aspects of their systems. Therefore, the Order has been revised to include a requirement that the Discharger complete a staffing analysis for the



entire wastewater collection and treatment system and if short staffed, provide a timeline for acquiring new staff.

*CSPA states that the Order contains inadequate requirements for the RWD.* In particular, CSPA is concerned that the RWD will not address potential groundwater degradation. Staff agree that this is appropriate, and have revised the Order to require that groundwater monitoring begin with the Second Quarter of 2007, and that the RWD include a discussion of the groundwater monitoring results and shall demonstrate that the proposed improvements are compliant with State Water Board Resolution No. 68-16 (the Antidegradation Policy).

*CSPA believes that the Order should include a 13308 Time Schedule Order.* CSPA is correct in the fact that the Discharger has violated its existing C&D Order. A 13308 Time Schedule Order is one method to further ensure compliance when a C&D Order has been violated. At this point, staff does not recommend that such an order be adopted, however. The connection restriction in the tentative Order will ensure that violations of the WDRs are not further exacerbated by additional flows to the collection system and WWTP. The connection restriction will also indirectly pressure the Discharger to make significant progress toward compliance in hopes that the Regional Water Board may ease the prohibition on new connections. The Regional Water Board retains the option to escalate enforcement to a higher level, such as by adopting a Time Schedule Order or Administrative Civil Liability Order.

*CSPA states that staff are failing to recover staff costs and that the Discharger is receiving an economic benefit in not complying with the 1996 C&D Order.* The purpose of this hearing is to consider a C&D Order and connection restriction to require the Discharger to resolve the issues in a timely manner. The issuance of an administrative civil liability at a later time has not been ruled out.

*CSPA believes that the Order does not protect public health because the public has not been informed of spills.* A review of the case file shows that the Discharger has not reported any spills from the system since 1996. In response to the comment, staff have added language to the Tentative Order requiring the Discharger to comply with the Standard Reporting requirements and to report all sanitary sewer overflows and any overflows from any treatment, storage, or disposal component. In addition, the Discharger is ordered to notify the Office of Emergency Services (OES), the County Environmental Health Department, and the Department of Fish and Game as appropriate. Staff also added language requiring specific inspections of the sprayfields and tailwater recirculation pond.

### **Public Comments**

Six potential homeowners within the Napa Berryessa Resort Improvement District service area have submitted letters. All the parties express the extreme hardship imposed upon them by the connection restriction. However, as stated earlier, staff have revised the Tentative Order to allow those parties which had completed all actions to obtain their building permit except pay the fees be exempted from the connection restriction. That exemption applies to five of the six parties which submitted comments.

The sixth person, Mr. Horobin, is a developer which submitted comments on behalf of his clients. His clients purchased the lot three months ago, and were in the process of obtaining a

building permit. Mr. Horobin states that the Napa County Board of Supervisors and the NBRID Board of Directors knew of the capacity issues for years and should have disclosed to potential homebuyers the seriousness of the wastewater system issues and the property could be prevented from being used.

## **SUMMARY AND RECOMMENDATION**

Staff recommends that the Regional Water Board adopt the Cease and Desist Order and connection restriction as proposed.

Attachment A Public Comment Letters

GJC/WSW: 12 October 2006  
26/27 October 2006 Regional Water Board meeting